

Multinational Collaborative Online International Project Experience - Intercultural Competencies in Change

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Abstract:

A US and Hungarian university carried out a six-week Collaborative Online International Learning project with students from 15 nations, focusing on international business negotiation; and exploring changes in cross-cultural skills. The research used three consecutive online questionnaires to measure 1) cultural openness; 2) commitment to the course, relationships with group members; 3) changes in openness and students' interest in international affairs. Currently the major changes in openness, international interest and personality is analysed from the collected data using statistical methods. The results show that, in line with the literature, the collaborative online international course does indeed bring about a change in participants' cultural competence and helps to change their mind-set and attitudes towards international and global issues.

Keywords: collaborative learning, intercultural competence, online collaboration

Track: Public Sector and Non-Profit Marketing

1. Introduction

Higher education institutions (HEI) are faced with the challenge to provide exclusive opportunities for their students in their learning process and technological changes and global processes made it possible to develop a special form of teaching and learning: the collaborative online international learning (COIL).

COIL was originally developed by the State University of New York in 2006. Its characteristics was discussed in Rubin (2017) and Rubin and Guth (2022). Collaborative online international learning involves teachers both in the participating, geographically distant institutions; who has to work together using a shared syllabus for the course or project. This project can be built into a course and it focuses not only on knowledge related to the subject but intercultural competence as well. During the project, multinational groups are created from the students of the participating institutions and teachers design assignments in the solution of which students have to collaborate using online technologies. As a result, students have a possibility to join to an exclusive international learning experience at their home university (SUNY, 2020).

COIL can help HEIs to improve their level of internationalization with a significantly reduced costs. Comparing to a classic international exchange, COIL ensures a cross-cultural experience for the students without the difficulties and expenses of travelling and living abroad (Liu, 2023); furthermore, Ofori et al. (2020) stated in their research that using innovative technologies and solutions results better learning outcomes and Qureshi et al. (2021) mentioned online collaborative learning as an effective learning model to improve participants achievement.

Previous studies mostly examined the role of technology in the success of online learning, usefulness, social engagement (Yadegaridehkordi et al., 2019; Hernandez-Sellés et al., 2019 in Ng et al. (2022)); motivational design of online learning (Mahande et al., 2022); effectiveness of COIL (Hackett et al., 2023); or focuses mainly of skills improved through a COIL project (Liu, 2023). The aim of this study is to build a complex model of the impact of the COIL course on the participants' self-image, cultural openness and their relationship with the international environment measuring their performance as well.

2. Literature Review

The demand for freshly graduates who are prepared to work in a multinational or global environment increases, resulting the expectation of students to have a possibility of learning and improving intercultural skills and becoming intercultural competent. Advances in

technology have created the opportunity for universities to offer future workers collaborative educational opportunities that are fully online (Marcillo-Gómez et al. 2016) and capable of producing globally prepared students who will be able to address global challenges and issues (Deardorf and Kones, 2012; van Gaalen and Gielesen, 2014). The most effective way for students to acquire intercultural competences is to learn about their peers from other cultures in an international environment through experiences (Appiah-Kubi and Annan, 2020), but unfortunately the pandemic COVID-19 has reduced opportunities for learning abroad worldwide.

Deardorff (2006) developed a model of intercultural competence as a developmental process involving inputs (institutional support, resources) that generate activities (this can be a COIL project) to achieve an output (result of the project or course). Researchers defined intercultural competence on different ways over the time, however, they emphasize three main areas: 1) working together; 2) bringing different perspectives together and learning about other cultures; 3) communicating effectively (Alvino, 2000; Deardorff, 2006; Kleinjans, 2020). However, most researchers agree that learning in multicultural groups can have a positive impact on students' performance and the development of their intercultural competences (Hackett, 2023, De Hei, 2020; Liang and Schartner, 2020).

As COIL requires student collaboration; students have to work as a team sharing ideas and helping each other, social and intercultural knowledge, understanding others is essential for a successful completion. Ability to cooperate and arguing using different viewpoints, building and sustaining relationships, and appropriate communication are also necessary characteristics (Appiah-Kubi and Annan, 2020) However, it is a must to mention, the specificity of a COIL course may influence the attitude and expectations of participants (Liu, 2023).

3. Description of the COIL Project

The collaboration investigated in this paper began as a result of a visit taken by a SUNY COIL representative (State University of New York Collaborative Online International Learning) at a Hungarian University in 2022. The representative facilitated to start a dialogue between a US and a Hungarian university.

Collaborative learning is more effective and efficient to junior and senior-level students than freshman level (Begoña F. Gutiérrez, Malin Reljanovic Glimäng, Robert O'Dowd and Shannon Sauro, 2021) so 19 MA in Marketing and Tourism Management students from 14 countries participated at the Hungarian side, 26 American nationality 3rd year BA in field of

business studies students participated at the US side, and language of the project was English. Aim of the course was to develop students' international competence and international negotiation knowledge, therefore we created mixed groups of students of the two universities.

COIL requires participants from different cultures and speaking different languages to work together and they only have six weeks for all activity. Ice-breaker session was used at the very beginning of the project to support a quick introduction of students and teachers as well. After the groups were created students worked with their team outside class time through recorded online weekly meetings. Communication channel could be chosen by group members, and most of them used Microsoft Teams and WhatsApp. Weekly meetings' records had to be uploaded to the US partner's LMS (Canvas) and teachers evaluated them regularly. At the 6th week, groups submitted a 20 minutes presentation describing their findings on possible problems in international business negotiations and their solutions.

4. Research Methodology

A student's skills and competencies basically lies in his/her personality, because personality influences how someone will behave generally. Level of knowledge about worldwide known topics complemented by international experience will define cultural openness, evaluation and interpretation of global issues. These elements were measured with a pre-survey before the beginning of the project. During the six-week teamwork, all the above mentioned characteristics influenced what social interactions happened among team members, the level of engagement to the project and its result and how students reflected for their experiences. This was monitored with a mid-survey. Since development – or changes at least – was expected as a result of participation in this COIL cooperation, self-description, international experiences were measured again at the end of the project.

The research focus was to verify the change along the variables of interest by comparing paired t-tests. In a paired t-test, a single population is tested for the same characteristic. The advantage of this method is that it can be used on a small sample, so the sample analysed (N=45) meets this criterion (Sajtos and Mitev, 2007). The study investigated whether: *global competencies and cultural openness and international interest changed as a result of collaborative online learning (RQ)*.

Hypotheses of the research:

- Global competencies and cultural openness changed significantly by the end of the course.
- International interests and activities changed significantly by the end of the course.

- Students' self-description changed significantly by the end of the course.

Construction	Definition
Self-description (SD)	How students think about themselves. A 10-item semantic differential scale developed by International Cross-cultural Experiential Learning Toolkit Project (2015) containing the following pairs: loner-joiner; reserved-outgoing; trusting-suspicious; open-minded-critical; conscientious-careless; disorganized-organized; even-tempered-temperamental; emotional-calm; conventional-creative; like challenge-prefer routine.
International interest and activities (IIA)	Activities students typically engage in at an international level. A 10-item 6-point Likert scale to measure knowledge about international environment, foreign culture and interest about international traveling developed by International Cross-cultural Experiential Learning Toolkit Project (2015).
Global competence and cultural openness	Understanding of others (AOF), language differences (LD) and difficulties, sustainability (GO), cultural openness and respect (CO). A 42-item 6-point Likert scale developed by OECD.

Table 1. Constructions of the research

The theoretical model is illustrated in Figure 1, where the research investigates how much the global competences and cultural openness of the students involved in the course have changed compared to the initial period. In addition, it was also used to track changes in international interest and changes in the student's international intercultural experiences. The value in the lower index indicates the period of the course. The literature review indicated that collaborative online learning has the potential to improve these areas and the empirical research aims to confirm this.

4.1. Data collection

The research was based on primary data, which was collected through online questionnaires: pre-survey was used in the middle of October, 2022; mid-survey at the first week of November, 2022 and the exit survey at the beginning of December, 2022 via the Lime survey platform. Completion happened with identification token to ensure the possibility of comparison between the pre-survey and exit survey data. The study population consisted of the student-participant of the programme. The questionnaire focuses on the topics mentioned at the beginning of chapter 4.

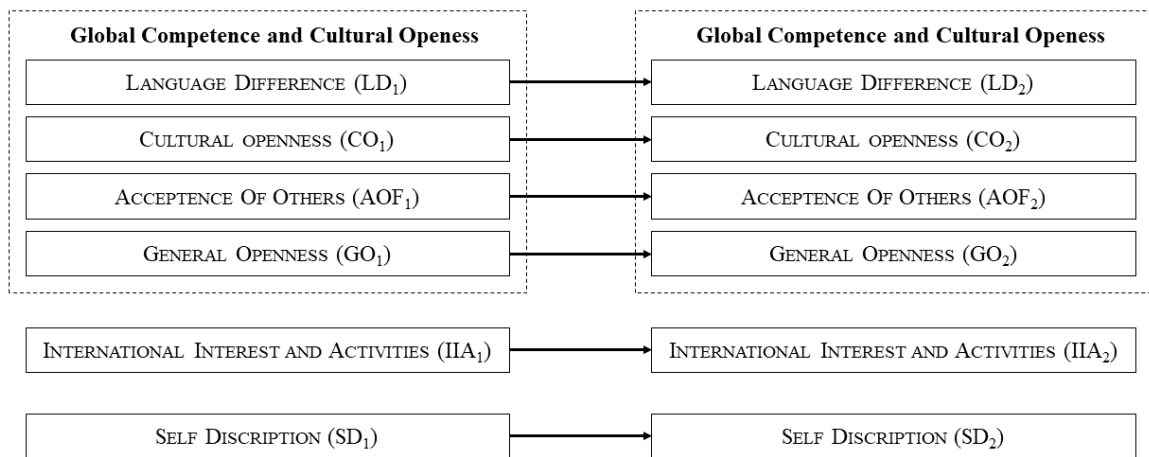


Figure 1: Theoretical model of changes in COIL (own edition, based on literature review)

5. Results

The course was taken by 19 students from Hungary and 26 students from the US, so this was the sample for the primary research. The gender distribution was almost identical, with slightly more men (54.3%) taking this course. In terms of age, the average age was 23 years with a standard deviation of 4.796. The youngest respondent was 18 years old and the oldest 37 years old.

The assumption for the paired t-test is a normal distribution, which can be tested by the Kolomogorov-Smirnov test (K-S). The variables included in the analysis were found to meet this criterion ($p > 0.05$), and the test of choice could be performed.

H1: Global competences and cultural openness changed significantly by the end of the course.

Language differences were measured by seven variables, three of which showed a significant positive change, most notably the frequent checking of the student's understanding of the other party (LD2). In the other two cases, explaining with examples and listening attentively resulted in a smaller mean difference ($MD = -0.250$). Of the five variables measuring respect for others, 2 showed a small negative but significant change, suggesting that this type of course may be subject to conflict, with the experience of a worse outcome than at baseline. This is also the reason for the negative change in the construct of cultural openness, although it is important to note that only one of the four variables (I am interested in how people from different cultures see the world - CO3) showed a decrease in value. In contrast, 5 of the 11 variables measuring general openness showed positive significant change, with the largest differences ($MD = -0.350$) for examining differences of opinion in decision-making (GO1) and seeking solutions in difficult situations (GO10). Based on the above, the first hypothesis can be partially accepted.

Construct	Variables	start of course	end of course	Paired Differences			Sig. (2- tailed)
		Mean1	Mean2	Mean Difference	Std. Deviation	t	
Language Difference	LD ₁₂ – LD ₂₂	4,55	5,35	-,800	1,056	-3,387	0,003
	LD ₁₃ – LD ₂₃	5,25	5,5	-,250	,910	-1,228	0,045
	LD ₁₅ – LD ₂₅	4,65	5,2	-,550	1,191	-2,065	0,033
Acceptance of Others	AOF ₁₂ – AOF ₂₂	5,85	5,75	,100	,447	1,000	0,040
	AOF ₁₃ – AOF ₂₃	5,8	5,65	,150	,587	1,143	0,037
Cultural Openness	CO ₁₃ – CO ₂₃	5,6	5,25	,350	,813	1,926	0,029
General Openness	GO ₁₁ – GO ₂₁	4,6	4,95	-,35000	1,03999	-1,505	0,015
	GO ₁₅ – GO ₂₅	4,35	4,65	-,30000	1,45458	-,922	0,037
	GO ₁₆ – GO ₂₆	4,6	4,85	-,25000	,85070	-1,314	0,039
	GO ₁₈ – GO ₂₈	4,85	4,65	,20000	1,00525	,890	0,038
	GO ₁₁₀ – GO ₂₁₀	4,7	5,05	-,35000	,81273	-1,926	0,029

Table 2. Changes in openness and global competences

H2: International interest and activities changed significantly by the end of the course.

All seven variables of the construct measuring international interest and activities show positive significant differences as shown in Table 3. The largest change (IIA6) was found for the labour market benefits of learning about another culture (MD = -1.950) in addition to the geographic knowledge of countries (MD = -1.9), which is probably due to the very wide range of the participating students' affiliations and the fact that they also learned about each other's countries as a result of the contact and pointed out that they would have to cope with similar international environments in their future work. The problems that emerged during the project were also highlighted in the analysis, with the statement (IIA7) that working with people from other cultures can be difficult, which was rated low by the students at the beginning of the course (Mean: 1.8) but was perceived as significantly more serious at the end of the course (Mean: 3.55). There was also a positive change in reading international news (IIA1) and willingness to travel abroad (IIA5). This indicates that students found the course challenging, but that this had a positive impact on their international interest and activity. In the light of the findings, the second hypothesis is accepted.

Construct	Variables	start of	end of	Paired Differences			Sig. (2- tailed)
		course Mean1	course Mean2	Mean Difference	Std. Deviation	t	
International Interest and Activities	IIA ₁ 1 – IIA ₂ 1	2,75	4,25	-1,500	1,000	-6,708	,000
	IIA ₁ 2 – IIA ₂ 2	2,25	2,9	-,650	1,496	-1,942	,057
	IIA ₁ 3 – IIA ₂ 3	3,15	5,05	-1,900	1,021	-8,324	,000
	IIA ₁ 4 – IIA ₂ 4	3,35	4,65	-1,300	,979	-5,940	,000
	IIA ₁ 5 – IIA ₂ 5	1,55	2,65	-1,100	1,373	-3,584	,002
	IIA ₁ 6 – IIA ₂ 6	3,45	5,4	-1,950	1,432	-6,091	,000
	IIA ₁ 7 – IIA ₂ 7	1,8	3,55	-1,750	1,970	-3,972	,001

Table 3. Changes in international interest and activities

H3: Students' self-perception changed significantly by the end of the course.

Self-description was assessed by students on a 10-item semantic differential scale whose initial state (at the beginning of the course) is shown in Table 4 with basic statistics. The pattern shows that they typically live their lives in an organised way, like to function as team players (joiner) but display temperamental behaviour and open-mindedness which is typically combined with creativity. They also consider themselves trusted and conscientious.

Variables	start of course		
	Mean	Mode	Std. Deviation
[Loner Joiner]	4,70	4	1,576
[Reserved Outgoing]	4,63	5	1,793
[Trusted Suspicious]	2,93	1	2,102
[Open-minded Critical]	3,35	2	2,100
[Conscientious Careless]	2,85	1	1,633
[Disorganized Organized]	5,24	7	1,728
[Even-tempered Temperamental]	3,83	4	1,568
[Emotional Unruffled/Calm]	4,17	4	1,525
[Conventional Creative]	4,76	5	1,508
[Like challenge Prefer routine]	3,74	4	1,731

Table 4. Personality characteristics

The personality characteristics remained essentially unchanged during the short period and the pattern described remained at the end of the course. Significant changes occurred along three variables, indicating that the course helped people to become more organised (MD = -0.550) by joining others (MD = -0.7). In turn, the professional and personal conflicts mentioned

earlier also resulted in higher scores for temperament (MD = -0.8). In light of the above, the third hypothesis can be partially accepted.

Variables	end of course Mean2	Paired Differences		t	Sig. (2-tailed)
		Mean difference	Std. Deviation		
[Loner Joiner]	5,050	-,700	1,174	-2,666	,015
[Disorganized Organized]	6,150	-,550	1,572	-1,565	,034
[Even-tempered Temperamental]	4,200	-,800	2,262	-1,582	,013

Table 5. Changes in personality characteristics

6. Summary

The main objective of COIL is to improve participants' intercultural competence. Given the limited data available, the study investigated whether a significant change in the intercultural characteristics of the participants could be detected after a six-week project. As demonstrated by the t-tests, significant differences in some personal characteristics, attitude toward international interest, cultural and global openness could be detected, which is supported by the literature described in Chapter 2. Based on these findings, further research could use the PLS method to investigate how additional factors (such as the level of commitment to the project, the success of teamwork, expectations toward the project) shape the variation in the items examined in this study.

References

- Alvino, E. F. (2000). A Central Concern: developing intercultural competence: School for International Training (SIT) Occasional Papers Series. *Addressing Intercultural Education, Training and Service*.
- Appiah-Kubi, P., & Annan, E. (2020). A review of a collaborative online international learning. *International Journal of Engineering Pedagogy*, 10(1).
- de Hei, M., Tabacaru, C., Sjoer, E., Rippe, R., & Walenkamp, J. (2020). Developing intercultural competence through collaborative learning in international higher education. *Journal of Studies in International Education*, 24(2), 190-211.
- Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of studies in international education*, 10(3), 241-266.
- Deardorff, D. K., & Jones, E. (2012). Intercultural competence. *The SAGE handbook of international higher education*, 283, 13-15.
- Gutierrz, B. F., Gimang, M. R., O'Dowd, R., & Sauro, S. (2021). *Mentoring Handbook for Virtual Exchange Teachers*. Strategies to help students achieve successful synchronous and asynchronous online intercultural communication. Stevens Initiative.

- Hackett, S., Janssen, J., Beach, P., Perreault, M., Beelen, J., & van Tartwijk, J. (2023). The effectiveness of Collaborative Online International Learning (COIL) on intercultural competence development in higher education. *International Journal of Educational Technology in Higher Education*, 20(1), 5.
- Hernández-Sellés, N., Muñoz-Carril, P. C., & González-Sanmamed, M. (2019). Computer-supported collaborative learning: An analysis of the relationship between interaction, emotional support and online collaborative tools. *Computers & Education*, 138, 1-12.
- Kleinjans, E. (1972). Opening remarks on a conference on world communication held at the East West Center. *Honolulu, Hawaii*.
- Liang, Y., & Schartner, A. (2022). Culturally mixed group work and the development of students' intercultural competence. *Journal of Studies in International Education*, 26(1), 44-60.
- Liu, Y. (2023). Overview of the Impact of Collaborative Online International Learning on Learners. In *SHS Web of Conferences* (Vol. 157, p. 04011). EDP Sciences.
- Mahande, R. D., Akram, A., & Rahman, E. S. (2022). A PLS-SEM Approach to Understand ARCS, McClellands, and SDT for The Motivational Design of Online Learning System Usage in Higher Education. *Turkish Online Journal of Distance Education*, 23(1), 97-112.
- Marcillo-Gómez, M., & Desilus, B. (2016). Collaborative online international learning experience in practice opportunities and challenges. *Journal of technology management & innovation*, 11(1), 30-35.
- Ng, P. M., Chan, J. K., & Lit, K. K. (2022). Student learning performance in online collaborative learning. *Education and Information Technologies*, 27(6), 8129-8145.
- Ofori, F., Maina, E., & Gitonga, R. (2020). Using machine learning algorithms to predict students' performance and improve learning outcome: A literature based review. *Journal of Information and Technology*, 4(1), 33-55.
- Qureshi, M. A., Khaskheli, A., Qureshi, J. A., Raza, S. A., & Yousufi, S. Q. (2021). Factors affecting students' learning performance through collaborative learning and engagement. *Interactive Learning Environments*, 1-21.
- Rubin, J. (2017). Embedding collaborative online international learning (COIL) at higher education institutions. *Internationalisation of Higher Education*, 2, 27-44.
- Rubin, J., & Guth, S. (Eds.). (2023). *The Guide to COIL Virtual Exchange: Implementing, Growing, and Sustaining Collaborative Online International Learning*. Taylor & Francis.
- Sajtos, L., & Mitev, A. (2007). SPSS research and data analysis manual. Alinea: Budapest, Hungary.
- Van Gaalen, A., & Gielesen, R. (2016). Internationalisation at home: Dutch higher education policies. In *Global and local internationalization* (pp. 149-154). Brill.
- Yadegaridehkordi, E., Shuib, L., Nilashi, M., & Asadi, S. (2019). Decision to adopt online collaborative learning tools in higher education: A case of top Malaysian universities. *Education and Information Technologies*, 24, 79-102.